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## LOGINID:SSPTAJDA1614

## PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

| * * *  | * *  | * *   | * * | * Welcome to STN International * * * * * * * * * * *  |
|--------|------|-------|-----|---|
| NEWS   | 1    |       |     | Web Page for STN Seminar Schedule - N. America  |
| NEWS   | 2    | NOV   | 21  | CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, |
| NEWS   | 3    | NOV   | 26  | and Japanese-language basic patents from 2004-present MARPAT enhanced with FSORT command                  |
| NEWS   | 4    | NOV   |     | CHEMSAFE now available on STN Easy  |
| NEWS   | 5    | NOV   |     | Two new SET commands increase convenience of STN  |
| NEWS   | 3    | NOV   | 20  | searching   |
| NEWS   | 6    | DEC   | 01  | ChemPort single article sales feature unavailable   |
| NEWS   | 7    | DEC   | 12  | GBFULL now offers single source for full-text coverage of complete UK patent families                     |
| NEWS   | 8    | DEC   | 17  | Fifty-one pharmaceutical ingredients added to PS  |
| NEWS   | 9    | JAN   |     | The retention policy for unread STNmail messages  |
| MEMP   | ,    | OM    | 00  | will change in 2009 for STN-Columbus and STN-Tokyo  |
| NEWS   | 10   | JAN   | 07  | WPIDS, WPINDEX, and WPIX enhanced Japanese Patent   |
|        |      |       |     | Classification Data   |
| NEWS   | 11   | FEB   | 02  | Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE            |
| NEWS   | 12   | FEB   | 02  | GENBANK enhanced with SET PLURALS and SET SPELLING  |
| NEWS   | 13   | FEB   | 06  | Patent sequence location (PSL) data added to USGENE   |
| NEWS   | 14   | FEB   | 10  | COMPENDEX reloaded and enhanced   |
| NEWS   | 15   | FEB   | 11  | WTEXTILES reloaded and enhanced   |
| NEWS   | 16   | FEB   | 19  | New patent-examiner citations in 300,000 CA/CAplus  |
|        |      |       |     | patent records provide insights into related prior art  |
| NEWS   | 17   | FEB   | 19  | Increase the precision of your patent queries use   |
|        |      |       |     | terms from the IPC Thesaurus, Version 2009.01   |
| NEWS   | 1.8  | FEB   | 23  | Several formats for image display and print options   |
| 110110 |      |       | 2.5 | discontinued in USPATFULL and USPAT2  |
| NEWS   | 19   | FEB   | 23  | MEDLINE now offers more precise author group fields   |
|        |      |       |     | and 2009 MeSH terms   |
| NEWS   | 20   | FEB   | 23  | TOXCENTER updates mirror those of MEDLINE - more  |
| 112110 |      |       | 20  | precise author group fields and 2009 MeSH terms   |
| NEWS   | 21   | FEB   | 23  | Three million new patent records blast AEROSPACE into   |
| 140110 |      | L     | 23  | STN patent clusters   |
| NEWS   | 22   | FEB   | 25  | USGENE enhanced with patent family and legal status   |
| MEMO   | 22   | LED   | 20  | display data from INPADOCDB   |
| NEWS   | 22   | MAR   | 06  | INPADOCDB and INPAFAMDB enhanced with new display   |
| MEMO   | 23   | PIME  | 06  | formats   |
| NEWS   | 2.1  | MAR   | 2.2 | EPFULL backfile enhanced with additional full-text  |
| NEWS   | 24   | MAR   | 11  | applications and grants   |
| MIDITO | 0.5  | 1/2 D |     |   |
| NEWS   | 25   | MAR   | 11  | ESBIOBASE reloaded and enhanced   |
| NEWS   | EXPI | RESS  |     | E 27 08 CURRENT WINDOWS VERSION IS V8.3,  |
|        |      |       | AND | CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.  |

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NEWS HOURS STN Operating Hours Plus Help Desk Availability
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NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 15:50:01 ON 16 MAR 2009

=> FIL REGISTRY

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 15 MAR 2009 HIGHEST RN 1121544-94-2 DICTIONARY FILE UPDATES: 15 MAR 2009 HIGHEST RN 1121544-94-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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    77848-04-5 REGISTRY
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MF
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LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); USES (Uses)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
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OTHER CA INDEX NAMES:
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OTHER NAMES:
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- DR 34185-37-0, 391936-33-7
- MF C15 H22 N2 O3
- LC STN Files: AGRICOLA, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, PHAR, RTECS\*, TOXCENTER, USPAT2, USPATFULL (\*File contains numerically searchable property data)
- DT.CA CAplus document type: Conference; Journal; Patent
- RL.P Roles from patents: AMST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
- RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); USES (Uses)
- RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
- RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); PREP (Preparation)

- \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*
  - 412 REFERENCES IN FILE CA (1907 TO DATE)
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  - 412 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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RN
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       BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
       CSCHEM, DDFU, DRUGU, EMBASE, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA,
      MEDLINE, MRCK*, PHAR, PROMT, PROUSDDR, RTECS*, SYNTHLINE, TOXCENTER,
      USAN, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources: EINECS**, WHO
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(\*\*Enter CHEMLIST File for up-to-date regulatory information)

DT.CA CAplus document type: Conference; Dissertation; Journal; Patent

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); PRPH (Prophetic); RACT (Reactant or reagent); USES (Uses)

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1188 REFERENCES IN FILE CA (1907 TO DATE)
22 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1188 REFERENCES IN FILE CAPLUS (1907 TO DATE)

TOTAL.

24.34

SESSION

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(FILE 'HOME' ENTERED AT 15:50:01 ON 16 MAR 2009)

FILE 'REGISTRY' ENTERED AT 15:50:10 ON 16 MAR 2009

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1 S E3 E "RO 1724"/CN 25

E "RO 20-1724"/CN 25

E "RO 20-1724"/CN 25 E "ROLIPRAM"/CN 25

=> file medline caplus wpids uspatfull

COST IN U.S. DOLLARS SINCE FILE
ENTRY
FULL ESTIMATED COST 24.12

FILE 'MEDLINE' ENTERED AT 15:52:30 ON 16 MAR 2009

FILE 'CAPLUS' ENTERED AT 15:52:30 ON 16 MAR 2009
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FILE 'WPIDS' ENTERED AT 15:52:30 ON 16 MAR 2009 COPYRIGHT (C) 2009 THOMSON REUTERS

FILE 'USPATFULL' ENTERED AT 15:52:30 ON 16 MAR 2009
CA INDEXING COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

```
=> s 12 or 13

L4 3096 L2 OR L3

=> s 14 and (CLL or "chronic myelogenous leukemia")

L5 34 L4 AND (CLL OR "CHRONIC MYELOGENOUS LEUKEMIA")

=> s 15 and (prd<19980924 or pd<19980924)

'19980924' NOT A VALID FIELD CODE

1 FILES SEARCHED...

L6 2 L5 AND (PRD<19980924 OR PD<19980924)
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=> d 16 1-2 ibib, abs

L6 ANSWER 1 OF 2 MEDLINE on STN ACCESSION NUMBER: 1998421394 MEDLINE DOCUMENT NUMBER: PubMed ID: 9746789

TITLE: Type 4 cyclic adenosine monophosphate phosphodiesterase as

a therapeutic target in chronic lymphocytic leukemia.

AUTHOR: Kim D H; Lerner A

CORPORATE SOURCE: Department of Medicine, Section of Hematology and Oncology,

Boston Medical Center, Boston, MA 02118, USA.

SOURCE: Blood, (1998 Oct 1) Vol. 92, No. 7, pp. 2484-94.

Journal code: 7603509. ISSN: 0006-4971.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

FILE SEGMENT: Abridge ENTRY MONTH: 199810

ENTRY DATE: Entered STN: 29 Oct 1998
Last Updated on STN: 3 Mar 2000

Entered Medline: 19 Oct 1998

AB Theophylline, a drug known to inhibit several classes of adenosine 3'5' cyclic monophosphate (cAMP) phosphodiesterases (PDEs), induces apoptosis in chronic lymphocytic leukemia (CLL) cells. Because the PDE target for theophylline in CLL remains unknown, we examined the ability of isoform-specific PDE inhibitors to increase cAMP levels and induce apoptosis in primary CLL cells. Reverse transcriptase-polymerase chain reaction of purified CLL cDNA amplified transcripts for PDE1B, 4A and 4B. The type 4 PDE inhibitor rolipram but not the type 1 inhibitor vinpocetine increased CLL cAMP levels. Rolipram-inhibitable (type 4) but not calcium-calmodulin augmented (type 1) PDE enzyme activity was detected in CLL samples. In samples from 13 of 14 CLL patients, rolipram induced apoptosis in a dose-dependent fashion over a 48-hour period. Interleukin-2 (IL-2)-cultured whole mononuclear cells (WMC) and anti-Iq stimulated CD19(+) B cells were resistant to the induction of apoptosis by rolipram while unstimulated CD19(+) B cells, which had a high basal apoptotic rate, were more sensitive. Rolipram stimulated elevations in cAMP levels in all four of these cell populations, suggesting that they differed in sensitivity to cAMP-induced apoptosis. Consistent with this hypothesis, incubation with the cell permeable cAMP analog dibutyryl-cAMP induced apoptosis in CLL cells and unstimulated B cells but not in IL-2-cultured WMC or anti-Ig stimulated B cells. These data identify PDE4 as a family of enzymes whose inhibition induces apoptosis in CLL cells.

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:646421 CAPLUS

DOCUMENT NUMBER: 130:261

TITLE: Type 4 cyclic adenosine monophosphate

phosphodiesterase as a therapeutic target in chronic

```
lymphocytic leukemia
AUTHOR(S):
                         Kim, Doo Ho; Lerner, Adam
CORPORATE SOURCE:
                         Department of Medicine, Section of Hematology and
                         Oncology, Boston Medical Center, Boston, MA, 02118,
                         USA
SOURCE:
                         Blood (1998), 92(7), 2484-2494
                         CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER:
                         W. B. Saunders Co.
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     Theophylline, a drug known to inhibit several classes of adenosine 3'5'
     cyclic monophosphate (cAMP) phosphodiesterases (PDEs), induces apoptosis
     in chronic lymphocytic leukemia (CLL) cells. Because the PDE
     target for theophylline in CLL remains unknown, the authors
     examined the ability of isoform-specific PDE inhibitors to increase cAMP
     levels and induce apoptosis in primary CLL cells. Reverse
     transcriptase-polymerase chain reaction of purified CLL cDNA
     amplified transcripts for PDE1B, 4A and 4B. The type 4 PDe inhibitor
     rolipram but not the type 1 inhibitor vinpocetine increased CLL
     cAMP levels. Rolipram-inhibitable (type 4) but not calcium-calmodulin
     augmented (type 1) PDE enzyme activity was detected in CLL
     samples. In samples from 13 of 14 CLL patients, rolipram
     induced apoptosis in a dose-dependent fashion over a 48-h period.
     Interleukin-2 (IL-2)-cultured whole mononuclear cells (WMC) and anti-Ig
     stimulated CD19+ B cells were resistant to the induction of apoptosis by
     rolipram while unstimulated CD19+ B cells, which had a high basal
     apoptotic rate, were more sensitive. Rolipram stimulated elevations in
     cAMP levels in all four of these cell populations, suggesting that they
     differed in sensitivity to cAMP-induced apoptosis. Consistent with this
     hypothesis, incubation with the cell permeable cAMP analog dibutyryl-cAMP
     induced apoptosis in CLL cells and unstimulated B cells but not
     in IL-2-cultured WMC or anti-Iq stimulated B cells. These data identify
     PDE4 as a family of enzymes whose inhibition induces apoptosis in
     CLL cells.
REFERENCE COUNT:
                         32
                               THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> d his
     (FILE 'HOME' ENTERED AT 15:50:01 ON 16 MAR 2009)
     FILE 'REGISTRY' ENTERED AT 15:50:10 ON 16 MAR 2009
                E "RO-1724"/CN 25
                E "RO 1724"/CN 25
              1 S E3
                E "RO 1724"/CN 25
                E "RO 20-1724"/CN 25
L2
              1 S E3
                E "RO 20-1724"/CN 25
                E "ROLIPRAM"/CN 25
L3
              1 S E3
     FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 15:52:30 ON 16 MAR
L4
           3096 S L2 OR L3
1.5
             34 S L4 AND (CLL OR "CHRONIC MYELOGENOUS LEUKEMIA")
1.6
              2 S L5 AND (PRD<19980924 OR PD<19980924)
```

=> s type(A)4(A)PDE(A)inhibitor

35 TYPE(A) 4(A) PDE(A) INHIBITOR

```
=> s type(A)4(A)phosphodiesterase(A)inhibitor
           201 TYPE(A) 4(A) PHOSPHODIESTERASE(A) INHIBITOR
=> s phosphodiesterase(A)tvpe(A)4(A)inhibitor
          145 PHOSPHODIESTERASE(A) TYPE(A) 4(A) INHIBITOR
=> s 17 and 18 and 19
L10
           11 L7 AND L8 AND L9
=> s 17 or 18 or 19
L11
          223 L7 OR L8 OR L9
=> dup rem 111
PROCESSING COMPLETED FOR L11
           152 DUP REM L11 (71 DUPLICATES REMOVED)
=> s 112 and (CLL or "chronic myelogenous leukemia")
            7 L12 AND (CLL OR "CHRONIC MYELOGENOUS LEUKEMIA")
=> d 113 1-7 ibib, abs
L13 ANSWER 1 OF 7
                      MEDLINE on STN
ACCESSION NUMBER: 2001540740 MEDLINE
                   PubMed ID: 11587214
DOCUMENT NUMBER:
TITLE:
                   Phosphodiesterase type 4
                   inhibitor suppresses expression of anti-apoptotic
                   members of the Bc1-2 family in B-CLL cells and
                    induces caspase-dependent apoptosis.
AUTHOR:
                   Siegmund B; Welsch J; Loher F; Meinhardt G; Emmerich B;
                   Endres S: Eigler A
CORPORATE SOURCE:
                   Division of Clinical Pharmacology, Medizinische Klinik
                    Innenstadt, Klinikum of the Ludwig-Maximilians-University
                   Munich, Germany.
                   Leukemia: official journal of the Leukemia Society of
SOURCE:
                   America, Leukemia Research Fund, U.K, (2001 Oct) Vol. 15,
                   No. 10, pp. 1564-71.
                   Journal code: 8704895. ISSN: 0887-6924.
PUB. COUNTRY:
                   England: United Kingdom
DOCUMENT TYPE:
                   Journal; Article; (JOURNAL ARTICLE)
                   (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE:
                   Enalish
FILE SEGMENT:
                  Priority Journals
ENTRY MONTH:
                   200202
ENTRY DATE:
                   Entered STN: 8 Oct 2001
                   Last Updated on STN: 23 Feb 2002
                   Entered Medline: 22 Feb 2002
     B cell chronic lymphocytic leukemia (B-CLL) is an incurable
AR
    clonal disease which shows initial responsiveness to a number of
     chemotherapeutic drugs. However, in most patients the disease becomes
     resistant to treatment. Rolipram, a specific inhibitor of
     phosphodiesterase (PDE) type 4, the PDE predominantly expressed in B-
     CLL cells, has been shown to induce cAMP-dependent apoptosis in
     these cells. In the present study, we demonstrate that the extent of
     rolipram-induced apoptosis is similar to fludarabine-induced apoptosis in
     vitro. The combination of rolipram and fludarabine results in an
     enhancement in the number of apoptotic cells compared to apoptosis induced
     by either agent alone. Second, rolipram suppresses the expression of
     anti-apoptotic members of the Bc1-2 family and induces the pro-apoptotic
     protein Bax, thereby shifting the balance between pro- and anti-apoptotic
    members of the Bc1-2 family towards a pro-apoptotic direction. Finally
     rolipram-induced apoptosis is caspase-dependent. PDE 4 inhibitors are
     currently under investigation for chronic obstructive pulmonary disease
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and asthma in phase III clinical trials showing promising results with tolerable side-effects. In conclusion, by inducing apoptosis, by enhancing apoptosis induced by fludarabine, by suppressing Bc1-2, Bc1-X and by inducing Bax expression, PDE 4 inhibitors may add a new therapeutic option for patients with B-CLT.

L13 ANSWER 2 OF 7 MEDLINE on STN ACCESSION NUMBER: 1998421394 MEDLINE DOCUMENT NUMBER: PubMed ID: 9746789

TITLE: Type 4 cyclic adenosine monophosphate phosphodiesterase as

a therapeutic target in chronic lymphocytic leukemia.

AUTHOR: Kim D H; Lerner A

CORPORATE SOURCE: Department of Medicine, Section of Hematology and Oncology, Boston Medical Center, Boston, MA 02118, USA.

SOURCE: Blood, (1998 Oct 1) Vol. 92, No. 7, pp. 2484-94.

Journal code: 7603509. ISSN: 0006-4971.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 199810

ENTRY DATE: Entered SIN: 29 Oct 1998

Last Updated on SIN: 3 Mar 2000
Entered Medline: 19 Oct 1998

Theophylline, a drug known to inhibit several classes of adenosine 3'5' AB cyclic monophosphate (cAMP) phosphodiesterases (PDEs), induces apoptosis in chronic lymphocytic leukemia (CLL) cells. Because the PDE target for theophylline in CLL remains unknown, we examined the ability of isoform-specific PDE inhibitors to increase cAMP levels and induce apoptosis in primary CLL cells. Reverse transcriptase-polymerase chain reaction of purified CLL cDNA amplified transcripts for PDE1B, 4A and 4B. The type 4 PDE inhibitor rolipram but not the type 1 inhibitor vinpocetine increased CLL cAMP levels. Rolipram-inhibitable (type 4) but not calcium-calmodulin augmented (type 1) PDE enzyme activity was detected in CLL samples. In samples from 13 of 14 CLL patients, rolipram induced apoptosis in a dose-dependent fashion over a 48-hour period. Interleukin-2 (IL-2)-cultured whole mononuclear cells (WMC) and anti-Iq stimulated CD19(+) B cells were resistant to the induction of apoptosis by rolipram while unstimulated CD19(+) B cells, which had a high basal apoptotic rate, were more sensitive. Rolipram stimulated elevations in cAMP levels in all four of these cell populations, suggesting that they differed in sensitivity to cAMP-induced apoptosis. Consistent with this hypothesis, incubation with the cell permeable cAMP analog dibutyryl-cAMP induced apoptosis in CLL cells and unstimulated B cells but not in IL-2-cultured WMC or anti-Ig stimulated B cells. These data identify PDE4 as a family of enzymes whose inhibition induces apoptosis in CLL cells.

L13 ANSWER 3 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2008:58534 USPATFULL
TITLE: Compositions and Methods for the Treatment of

Peripheral B-Cell Neoplasms

INVENTOR(S): Lerner, Adam, Newton, MA, UNITED STATES

Tiwari, Sanjay, Buchholz, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): Trustees of Boston University, Boston, MA, UNITED

STATES, 02215 (U.S. corporation)

 APPLICATION INFO.: US 2005-792172 A1 20051201 (11) WO 2005-US43613 20051201

20071106 PCT 371 date

NUMBER DATE US 2004-632207P 20041201 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: RONALD I. EISENSTEIN, 100 SUMMER STREET, NIXON PEABODY

LLP, BOSTON, MA, 02110, US

NUMBER OF CLAIMS: 14

PRIORITY INFORMATION:

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 9 Drawing Page(s)

LINE COUNT: 1456

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention is directed to the use of a PDE4 inhibitor and a glucocorticoid to treat peripheral B-cell neoplasms. In particular, the present invention provides a method of treating individuals (e.g. patients) diagnosed with peripheral B-cell leukemias by administering pharmaceutical compositions comprising Type 4 cyclic adenosine monophosphate phosphodiesterase inhibitors and a glucocorticoid. Preferably, the combination of the PDE4 inhibitor and the glucocorticoid has a synergistic effect on apoptosis such that the level of apoptosis induced is greater than the level that would be expected by simply adding a PDE4 inhibitor to a glucocorticoid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 4 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2006:315829 USPATFULL

TITLE: Method of modulating stress-activated protein kinase

INVENTOR(S): Blatt, Lawrence M., San Francisco, CA, UNITED STATES Seiwert, Scott D., Pacifica, CA, UNITED STATES Beigelman, Leonid, San Mateo, CA, UNITED STATES

Radhakrishnan, Ramachandran, Fremont, CA, UNITED STATES

|                     | NUMBER         | KIND | DATE     |      |
|---------------------|----------------|------|----------|------|
|                     |                |      |          |      |
| PATENT INFORMATION: | US 20060270612 | A1   | 20061130 |      |
| APPLICATION INFO.:  | US 2006-431132 | A1   | 20060509 | (11) |

NUMBER DATE PRIORITY INFORMATION: US 2005-679471P 20050510 (60)

US 2005-732230P 20051101 (60) DOCUMENT TYPE: Utility

FILE SEGMENT:

APPLICATION LEGAL REPRESENTATIVE:

KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET,

FOURTEENTH FLOOR, IRVINE, CA, 92614, US

NUMBER OF CLAIMS: 92

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 7 Drawing Page(s)

LINE COUNT: 2814

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are methods of modulating a stress activated protein kinase (SAPK) system with an active compound, wherein the active compound exhibits low potency for inhibition of at least one p38 MAPK; and wherein the contacting is conducted at a SAPK-modulating concentration that is at a low percentage inhibitory concentration for inhibition of the at least one p38 MAPK by the compound. Also disclosed are

derivatives of pirfenidone. These derivatives can modulate a stress activated protein kinase (SAPK) system.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 5 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2003:167754 USPATFULL

TITLE: Transgenic animal having a disrupted PDE7A gene and

uses thereof

INVENTOR(S): Michaeli, Tamar, Bronx, NY, UNITED STATES

NUMBER KIND DATE US 20030115615 A1 20030619 US 6740793 B2 20040525 PATENT INFORMATION: APPLICATION INFO.: US 2001-950920 A1 20010912 (9) DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Craig J. Arnold, Esq., AMSTER ROTHSTEIN & EBENSTEIN, 90

Park Avenue, New York, NY, 10016

NUMBER OF CLAIMS: 20 EXEMPLARY CLAIM:

EXEMPLARY CLAIM.
NUMBER OF DRAWINGS: 4 Drawing. 1270 4 Drawing Page(s)

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides a transgenic non-human animal whose genome comprises a disruption in its endogenous PDE7A gene, wherein the transgenic animal exhibits decreased expression of functional PDE7A protein relative to wild-type. The present invention further provides a method for creating a transgenic non-human animal exhibiting decreased expression of functional PDE7A protein relative to wild-type. Finally, the present invention provides a method for screening a PDE7A inhibitor for at least one side-effect.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 6 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2003:24171 USPATFULL

TITLE: Compositions and methods for the treatment of chronic

lymphocytic leukemia

INVENTOR(S): Lerner, Adam, Newton Highlands, MA, UNITED STATES

PATENT ASSIGNEE(S): The Trustees of Boston University (U.S. corporation)

NUMBER KIND DATE PATENT INFORMATION: US 20030018014 A1 20030123 US 2002-60759 A1 20020130 (10) APPLICATION INFO.:

RELATED APPLN. INFO.: Division of Ser. No. US 2000-423349, filed on 1 May

2000, GRANTED, Pat. No. US 6399649 A 371 of International Ser. No. WO 1999-US21518, filed on 17 Sep

1999, PENDING

NUMBER DATE PRIORITY INFORMATION: US 1998-101721P 19980924 (60) Utility

DOCUMENT TYPE: FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: NIXON PEABODY LLP, 101 FEDERAL ST, BOSTON, MA, 02110

NUMBER OF CLAIMS: 14 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 14 Drawing Page(s)

LINE COUNT: 883 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods for treating patients with CLL with pharmaceutical

agents are disclosed. The methods of the present invention can be used in patients that have not responded to standard treatment. In addition, the methods can be used to augment the impact of standard chemotherapy.

---

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 7 OF 7 USPATFULL on STN

ACCESSION NUMBER: 2002:129999 USPATFULL

TITLE: Compositions and methods for the treatment of chronic

lymphocytic leukemia

INVENTOR(S): Lerner, Adam, Newton Highlands, MA, United States

PATENT ASSIGNEE(S): Boston Medical Center Corporation, Boston, MA, United States (U.S. corporation)

.... KIND

|                     | NUMBER          | KIND | DATE     |              |
|---------------------|-----------------|------|----------|--------------|
|                     |                 |      |          |              |
| PATENT INFORMATION: | US 6399649      | B1   | 20020604 |              |
|                     | WO 2000016621   |      | 20000330 |              |
| APPLICATION INFO.:  | US 2000-423349  |      | 20000501 | (9)          |
|                     | WO 1999-US21518 |      | 19990917 |              |
|                     |                 |      | 20000501 | PCT 371 date |

NUMBER DATE

PRIORITY INFORMATION: US 1998-101721P 19980924 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

Goldberg, Jerome D. PRIMARY EXAMINER: LEGAL REPRESENTATIVE: Nixon Peabody LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 26 Drawing Figure(s); 14 Drawing Page(s)

901 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods for treating patients with CLL with pharmaceutical

agents are disclosed. The methods of the present invention can be used in patients that have not responded to standard treatment. In addition, the methods can be used to augment the impact of standard chemotherapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 15:50:01 ON 16 MAR 2009)

FILE 'REGISTRY' ENTERED AT 15:50:10 ON 16 MAR 2009

E "RO-1724"/CN 25 E "RO 1724"/CN 25

L1 1 S E3

E "RO 1724"/CN 25 E "RO 20-1724"/CN 25

E "RO 20-1724"/CN 25 E "ROLTPRAM"/CN 25

T.3 1 S E3

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 15:52:30 ON 16 MAR 2009

T. 4 3096 S L2 OR L3

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L5
             34 S L4 AND (CLL OR "CHRONIC MYELOGENOUS LEUKEMIA")
L6
             2 S L5 AND (PRD<19980924 OR PD<19980924)
             35 S TYPE (A) 4 (A) PDE (A) INHIBITOR
T.R
           201 S TYPE (A) 4 (A) PHOSPHODIESTERASE (A) INHIBITOR
T.9
           145 S PHOSPHODIESTERASE(A) TYPE(A) 4(A) INHIBITOR
L10
            11 S L7 AND L8 AND L9
           223 S L7 OR L8 OR L9
L12
           152 DUP REM L11 (71 DUPLICATES REMOVED)
L13
              7 S L12 AND (CLL OR "CHRONIC MYELOGENOUS LEUKEMIA")
=> s type(N)4(N)cyclic(N)adenosine(N)monophosphate(N)phosphodiesterase
            22 TYPE(N) 4(N) CYCLIC(N) ADENOSINE(N) MONOPHOSPHATE(N) PHOSPHODIES
               TERASE
=> s 114 and (prd<19980924 or pd<19980924)
'19980924' NOT A VALID FIELD CODE
   1 FILES SEARCHED...
             3 L14 AND (PRD<19980924 OR PD<19980924)
=> d 115 1-3 ibib, abs
L15 ANSWER 1 OF 3
                       MEDLINE on STN
ACCESSION NUMBER:
                    1998421394
                                  MEDI, INE
DOCUMENT NUMBER:
                    PubMed ID: 9746789
TITLE:
                    Type 4 cyclic
                    adenosine monophosphate
                    phosphodiesterase as a therapeutic target in
                    chronic lymphocytic leukemia.
AUTHOR:
                    Kim D H; Lerner A
CORPORATE SOURCE:
                   Department of Medicine, Section of Hematology and Oncology,
                    Boston Medical Center, Boston, MA 02118, USA.
                    Blood, (1998 Oct 1) Vol. 92, No. 7, pp. 2484-94.
SOURCE:
                    Journal code: 7603509. ISSN: 0006-4971.
PUB. COUNTRY:
                    United States
DOCUMENT TYPE:
                    Journal; Article; (JOURNAL ARTICLE)
                    (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE:
                    English
FILE SEGMENT:
                   Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH:
                    199810
ENTRY DATE:
                    Entered STN: 29 Oct 1998
                    Last Updated on STN: 3 Mar 2000
                    Entered Medline: 19 Oct 1998
     Theophylline, a drug known to inhibit several classes of adenosine 3'5'
     cyclic monophosphate (cAMP) phosphodiesterases (PDEs), induces apoptosis
     in chronic lymphocytic leukemia (CLL) cells. Because the PDE target for
     theophylline in CLL remains unknown, we examined the ability of
     isoform-specific PDE inhibitors to increase cAMP levels and induce
     apoptosis in primary CLL cells. Reverse transcriptase-polymerase chain
```

AB Theophylline, a drug known to inhibit several classes of adenosine 3'5' cyclic monophosphate (cAMP) phosphodiesterases (PDEs), induces apoptosis in chronic lymphocytic leukemia (CLL) cells. Because the PDE target for theophylline in CLL remains unknown, we examined the ability of isoform-specific PDE inhibitors to increase cAMP levels and induce apoptosis in primary CLL cells. Reverse transcriptase-polymerase chain reaction of purified CLL cDNA amplified transcriptase-polymerase chain reaction of purified CLL cDNA amplified transcripts for PDEIB, 4A and 4B. The type 4 PDE inhibitor rolipram but not the type 1 inhibitor vinpocetine increased CLL cAMP levels. Rolipram-inhibitable (type 4) but not calcium-calmodulin augmented (type 1) PDE enzyme activity was detected in CLL samples. In samples from 13 of 14 CLL patients, rolipram induced apoptosis in a dose-dependent fashion over a 48-hour period. Interleukin-2 (LL-2)-cultured whole mononuclear cells (WMC) and anti-Ig stimulated CD19(+) B cells were resistant to the induction of apoptosis by rolipram while unstimulated CD19(+) B cells, which had a high basal apoptotic rate, were more sensitive. Rolipram stimulated elevations in cAMP levels in all four of these cell populations, suggesting that they differed in sensitivity to cAMP-induced apoptosis. Consistent with this hypothesis, incubation with the cell permeable cAMP analog dibutyryl-cAMP induced apoptosis in CLL cells and unstimulated B cells but not in

IL-2-cultured WMC or anti-Iq stimulated B cells. These data identify PDE4 as a family of enzymes whose inhibition induces apoptosis in CLL cells.

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:646421 CAPLUS

DOCUMENT NUMBER: 130:261

TITLE: Type 4 cyclic

adenosine monophosphate

phosphodiesterase as a therapeutic target in

chronic lymphocytic leukemia

Kim, Doo Ho; Lerner, Adam AUTHOR(S):

CORPORATE SOURCE: Department of Medicine, Section of Hematology and

Oncology, Boston Medical Center, Boston, MA, 02118,

Blood (1998), 92(7), 2484-2494 SOURCE: CODEN: BLOOAW; ISSN: 0006-4971

W. B. Saunders Co. PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English Theophylline, a drug known to inhibit several classes of adenosine 3'5' cyclic monophosphate (cAMP) phosphodiesterases (PDEs), induces apoptosis in chronic lymphocytic leukemia (CLL) cells. Because the PDE target for theophylline in CLL remains unknown, the authors examined the ability of isoform-specific PDE inhibitors to increase cAMP levels and induce apoptosis in primary CLL cells. Reverse transcriptase-polymerase chain reaction of purified CLL cDNA amplified transcripts for PDE1B, 4A and 4B. The type 4 PDe inhibitor rolipram but not the type 1 inhibitor vinpocetine increased CLL cAMP levels. Rolipram-inhibitable (type 4) but not calcium-calmodulin augmented (type 1) PDE enzyme activity was detected in CLL samples. In samples from 13 of 14 CLL patients, rolipram induced apoptosis in a dose-dependent fashion over a 48-h period. Interleukin-2 (IL-2)-cultured whole mononuclear cells (WMC) and anti-Ig stimulated CD19+ B cells were resistant to the induction of apoptosis by rolipram while unstimulated CD19+ B cells, which had a high basal apoptotic rate, were more sensitive. Rolipram stimulated elevations in cAMP levels in all four of these cell populations, suggesting that they differed in sensitivity to cAMP-induced apoptosis. Consistent with this hypothesis, incubation with the cell permeable cAMP analog dibutyryl-cAMP induced apoptosis in CLL cells and unstimulated B cells but not in IL-2-cultured WMC or anti-Iq stimulated B cells. These data identify PDE4 as a family of enzymes whose inhibition induces apoptosis in CLL cells.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 3 USPATFULL on STN

ACCESSION NUMBER: 2002:206794 USPATFULL

TITLE: Nicotinamide acids, amides, and their mimetics active

as inhibitors of PDE4 isozymes INVENTOR(S):

Magee, Thomas Victor, Mystic, CT, UNITED STATES

Marfat, Anthony, Mystic, CT, UNITED STATES Chambers, Robert James, Mystic, CT, UNITED STATES

PATENT ASSIGNEE(S): Pfizer Inc. (U.S. corporation)

NUMBER KIND -----US 20020111495 A1 20020815 US 2002-62811 A1 20020131 PATENT INFORMATION: APPLICATION INFO.: A1 20020131 (10)

NUMBER DATE PRIORITY INFORMATION: US 2001-265240P 20010131 (60) US 1997-43403P 19970404 (60)

<--

US 1998-105120P 19981021 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: PFIZER INC, 150 EAST 42ND STREET, 5TH FLOOR - STOP 49,

NEW YORK, NY, 10017-5612 NUMBER OF CLAIMS: 22

EXEMPLARY CLAIM: 1
LINE COUNT: 7710

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds useful as inhibitors of PDE4 in the treatment of diseases regulated by the activation and degranulation of eosinophils, especially asthma, chronic bronchitis, and chronic obstructuive pulmonary disease, of the formula: ##STR!##

wherein j is 0 or 1, k is 0 or 1, m is 0, 1, or 2; n is 1 or 2; A is

selected from the partial Formulas: ##STR2##

where q is 1, 2, or 3, W.sup.3 is --O--; -N(R.sup.9)--; or --OC(.ddb.0)--; R.sup.7 is selected from -H; --(C.sub.1-C.sub.1b) alkyl, --(C.sub.2-C.sub.6) alkenyl, or --(C.sub.2-C.sub.6) alkynyl substituted by 0 to 3 substituents R.sup.10; --(CR.bub.2-C.sub.6) alkynyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl substituted by 0 to 3 R.sup.10; and phenyl or benzyl; 1,2,4-triazol-3-yl; 1,2,4-triazol-3-yl; 1,2,4-triazol-3-on-5-yl; 1,2,4-oxadiazol-3-on-5-yl; 1,2,4-oxadiazol-3-on-5-yl; 1,2,4-oxadiazol-3-on-5-yl; 1,2,4-oxadiazol-3-yl; 1,2,4-oxadiazol-3-yl; 1,2,4-oxadiazol-3-yl; problinyl; parathiazinyl; oxazolyl; sioxazolyl; thiazolyl; sioxhiazolyl; pyrradyl; pyrradyl; succinimidyl; glutarimidyl; pyrradyl; py

isoindolinyl; benzo[b]furanyl; 2,3-dihydrobenzofuranyl; 1,3-dihydroisobenzofuranyl; 2H-1-benzopyranyl; 2-H-chromenyl; chromanyl;

benzothienyl; 1H-indazolyl; benzimidazolyl; benzoxazolyl;

benzisoxazolyl; benzothiazolyl; benzotriazolyl; benzotriazinyl; phthalazinyl; 1,8-naphthyridinyl; quinolinyl; isoquinolinyl;

quinazolinyl; quinoxalinyl; pyrazolo[3,4-d]pyrimidinyl;

pyrimido[4,5-d]pyrimidinyl; imidazo[1,2-a]pyridinyl; pyridopyridinyl;
pteridinyl; or lH-purinyl; or A is selected from phosphorous and sulfur
acid groups; W is --0--; --S(.dbd.O).sub.t--, where t is 0, 1, or 2; or
--N(R.sup.3)--; Y is .dbd.C(R.sup.1.sub.a)--, or --[N(O).sub.k] where k
is 0 or 1; R.sup.4, R.sup.5 and R.sup.6 are (1) --H; provided that

R.sup.5 and R.sup.6 are not both --H at the same time, --F; --C1; --(C.sub.2-C.sub.4) alkynyl; --R.sup.16; --OR.sup.16;

-S(.dbd.0).sub.pR.sup.16; --C(.dbd.0)R.sup.16, --C(.dbd.0)OR.sup.16,

--C(.dbd.0)OR.sup.16; --OC(.dbd.0)R.sup.16; --CN; --NO.sub.2; --C(.dbd.0)NR.sup.16R.sup.17; --OC(.dbd.0)NR.sup.16R.sup.17;

--NR.sup.12.sub.aC(.dbd.0)NR.sup.16R.sup.17;

--NR.sup.12.sub.aC(.dbd.NR.sup.12)NR.sup.16R.sup.17;
--NR.sup.12.sub.aC(.dbd.NCN)NR.sup.16R.sup.16;

--NR.sup.12.sub.aC(.dbd.N--NO.sub.2)NR.sup.15R.sup.16;

--C(.dbd.NR.sup.12.sub.a)NR.sup.15R.sup.16; --CH.sub.2C(.dbd.NR.sup.12.sub.a)NR.sup.16R.sup.17;

--Cn.sub.2c(.dbd.NR.sup.12.sub.a)NR.sup.16R.sup.17;

--OC(.dbd.N--NO.sub.2)NR.sup.16R.sup.17; --NR.sup.16R.sup.17; --CH.sub.2NR.sup.16R.sup.17; --NR.sup.12.sub.aC(.dbd.0)R.sup.16;

--NR.sup.12.sub.aC(.dbd.O)OR.sup.16; .dbd.NOR.sup.16;

--NR.sup.12.sub.aS(.dbd.0).sub.pR.sup.17 --S(.dbd.0).sub.pNR.sup.16R.sup.17; and

--CH.sub.2C(.dbd.NR.sup.12.sub.a)NR.sup.16R.sup.17; (2)

-- (C.sub.1-C.sub.4) alkyl including dimethyl and -- (C.sub.1-C.sub.4)

alkoxy substituted with 0 to 3 substituents --F or --Cl; or 0 or 1 substituent (C.sub.1-C.sub.2) alkoxycarbony1-, (C.sub.1-C.sub.2) alkylcarbony1-, or (C.sub.1-C.sub.2) alkylcarbony1oxy-; or (3) an aryl or heterocyclic moiety; or (4) R.sup.5 and R.sup.6 are taken together to form a moiety of partial Formulas (1.3.1) through (1.3.15): #\$STR3##

or a pharmaceutically acceptable salt thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s inhibitor(N)PDE4

L16 1973 INHIBITOR(N) PDE4

=> s 116 and (CLL or "chronic myelogenous leukemia")

L17 78 L16 AND (CLL OR "CHRONIC MYELOGENOUS LEUKEMIA")

=> s 117 and (prd<19980924 or pd<19980924) '19980924' NOT A VALID FIELD CODE

1 FILES SEARCHED...

L18 2 L17 AND (PRD<19980924 OR PD<19980924)

=> d 118 1-2 ibib, abs

L18 ANSWER 1 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2003:265926 USPATFULL

TITLE: Substituted gamma-phenyl-delta-lactams and uses related

thereto

INVENTOR(S): Shen, Yaping, Port Coquitlam, CANADA Burgoyne, David L., Delta, CANADA

Lauener, Ronald W., New Westminster, CANADA

Zhou, Yuanlin, Richmond, CANADA

Rebstein, Patrick J., Vancouver, CANADA Abraham, Samuel D. M., Vancouver, CANADA

PATENT ASSIGNEE(S): Inflazyme Pharmaceuticals Ltd., Richmond, BC, CANADA,

V6V 2M2 (non-U.S. corporation)

RELATED APPLN. INFO: Continuation-in-part of Ser. No. US 2001-786949, filed on 11 May 2001, GRANTED, Fat. No. US 6458829 A 371 of International Ser. No. WO 1999-CA819, filed on 9 Sep 1999, UNKNOWN Continuation-in-part of Ser. No. US

International Ser. No. WO 1999-CA819, filed on 9 Sep 1999, UNKNOWN Continuation-in-part of Ser. No. US 2002-81993, filed on 22 Feb 2002, PENDING Continuation of Ser. No. US 2000-527699, filed on 16 Mar 2000, ABANDONED Continuation of Ser. No. US 1999-393445,

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filed on 8 Sep 1999, ABANDONED

PRIORITY INFORMATION: US 1998-99637P 19980909 (60)
US 1999-121507P 19990223 (60)
US 1999-149517P 19990817 (60)
DOCUMENT TYPE: Utility

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH

AVE, SUITE 6300, SEATTLE, WA, 98104-7092 NUMBER OF CLAIMS: 49

EXEMPLARY CLAIM: 1

LINE COUNT: 6094

states.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB  $\gamma$ -Phenyl-substituted  $\Delta$ -lactams are disclosed. They may be formulated into pharmaceutical compositions, and/or used in the treatment or prevention of inflammation or other conditions or disease

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 2 OF 2 USPATFULL on STN

ACCESSION NUMBER: 2002:254380 USPATFULL

TITLE: Substituted γ-phenyl-Δ-lactones and analogs

thereof and uses related thereto
INVENTOR(S): Shen, Yaping, Port Coquitlam, CANADA

Burgoyne, David L., Delta, CANADA

Lauener, Ronald W., Westminister, CANADA

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Zhou, Yuanlin, Richmond, CANADA

Rebstein, Patrick J., Vancouver, CANADA Abraham, Samuel D. M., Vancouver, CANADA

PATENT ASSIGNEE(S): Inflazyme Pharmaceuticals Ltd., Richmond, CANADA

(non-U.S. corporation)

|                     | NUMBER         | KIND | DATE     |              |
|---------------------|----------------|------|----------|--------------|
|                     |                |      |          |              |
| PATENT INFORMATION: | US 6458829     | B1   | 20021001 |              |
|                     | WO 2000014083  |      | 20000316 |              |
| APPLICATION INFO.:  | US 2001-786949 |      | 20010511 | (9)          |
|                     | WO 1999-CA819  |      | 19990909 |              |
|                     |                |      | 20010511 | PCT 371 date |

|          |              |    | NUMBER       | DATE     |      |
|----------|--------------|----|--------------|----------|------|
|          |              |    |              |          |      |
| PRIORITY | INFORMATION: | US | 1999-149517P | 19990817 | (60) |
|          |              | US | 1999-121507P | 19990223 | (60) |
|          |              | US | 1998-99637P  | 19980909 | (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Owens, Amelia

LEGAL REPRESENTATIVE: Seed Intellectual Property Law Group PLLC NUMBER OF CLAIMS: 63

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 5553

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB γ-Phenyl-substituted Δ-lactones and analogs thereof,

including lactams, are disclosed. They may be formulated into pharmaceutical compositions, and/or used in the treatment or prevention

of inflammation or other conditions or disease states.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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FILE 'REGISTRY' ENTERED AT 15:50:10 ON 16 MAR 2009

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1 1 S E3

E "RO 1724"/CN 25

E "RO 20-1724"/CN 25

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               E "ROLIPRAM"/CN 25
1.3
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L5
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L6
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L7
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L8
           201 S TYPE (A) 4 (A) PHOSPHODIESTERASE (A) INHIBITOR
L9
           145 S PHOSPHODIESTERASE(A) TYPE(A) 4(A) INHIBITOR
L10
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L13
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L15
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L17
L18
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Executing the logoff script...
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COST IN U.S. DOLLARS
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FULL ESTIMATED COST
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                                                               164.94
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE
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CA SUBSCRIBER PRICE
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